

Application of Wisconsin Electric Power Company  
To Install Selective Catalytic Reduction Facilities and Associated Equipment on Edgewater Unit  
5 for Control of Nitrogen Oxide Emissions  
Docket No. 05-CE-137

**Data Request PSC 02.01**

**Request:**

02.01 Provide EGEAS analysis regarding the WEPCO share of the proposed Edgewater 5 project and how this fits into the overall expansion plan for the WEPCO generation fleet. This material may be supplemented with additional analysis showing any potential ratepayer benefits from selling power into the wholesale market. The analysis shall include NOx, SO<sub>2</sub>, and likely CO<sub>2</sub> allowance monetization based on the best available information.

**Supplemental Response:**

Wisconsin Electric Power Company originally responded to this request on March 12, 2009.  
( [http://psc.wi.gov/apps/erf\\_share/view/viewdoc.aspx?docid=109441](http://psc.wi.gov/apps/erf_share/view/viewdoc.aspx?docid=109441) )

Since March, the following EGEAS inputs and methodologies have been updated to improve the alignment and consistency of the WPL and WE EGEAS analyses. Specifically, the following items have changed since the March EGEAS runs:

- Match WPL fuel price for Edgewater Unit 5.
- Match WPL heat rate for Edgewater Unit 5.
- Add a variable O&M component to Edgewater Unit 5 based on We Energies' offer price in the MISO market.
- Account for on-going Edgewater Unit 5 capital spending revenue requirements as a detailed cost.
- Revise the fixed O&M for Edgewater Unit 5 down to account for the removal of variable O&M dollars and on-going capital revenue requirement dollars previously modeled as fixed O&M.
- Model Edgewater Unit 5 as a must run unit on the We Energies system to more closely match the WPL capacity factor for the unit.

Fuel price sensitivity runs were also performed with the June 2009 EGEAS inputs as follows:

- High gas - Non-carbon Constrained: Natural gas price forecast increased 10%
- Low gas - Non-carbon Constrained: Natural gas price forecast decreased 10%
- High gas - Carbon Constrained: Natural gas price forecast increased 10%
- Low gas - Carbon Constrained: Natural gas price forecast decreased 10%

The following table summarizes the results of the EGEAS runs using the June 2009 EGEAS inputs:

(A)	(B) Control Edge 5	(C) Retire Edge 5	(D) Delta C - B
<i>Non-Carbon Constrained Case</i>	\$ 37,863.1	\$ 38,043.7	\$ 180.6
<b>WPL Coal Price</b>			
<b>WPL Heat Rate</b>			
<b>Add a VOM component based We Energies MISO offer</b>			
<b>Account for on-going Capital as a Detailed Cost</b>			
<b>Revise fixed O&amp;M down to account for the removal of the VOM dollars and on-going capital dollars</b>			
<b>Model unit as must run to more closely match WPL capacity factor</b>			
<i>Non-Carbon Constrained Case, High Gas</i>	\$ 38,097.8	\$ 38,310.3	\$ 212.5
<i>Non-Carbon Constrained Case, Low Gas</i>	\$ 37,628.2	\$ 37,776.9	\$ 148.8
<i>Carbon Constrained Case</i>	\$ 45,731.6	\$ 45,770.5	\$ 38.9
<b>CO2 Monetized starting 2014</b>			
<i>Carbon Constrained Case, High Gas</i>	\$ 46,545.7	\$ 46,598.5	\$ 52.8
<i>Carbon Constrained Case, Low Gas</i>	\$ 44,859.9	\$ 44,889.3	\$ 29.4
<i>Carbon Constrained Case, with SO2 and Nox</i>	\$ 45,752.6	\$ 45,769.3	\$ 16.7

The full EGEAS analyses are provided in a confidential CD mailed separately to the PSCW and requesting parties having signed confidentially agreements in the subject docket.

**Supplemental Response by:** Jeff Knitter

**Date:** June 5, 2009